Portland Harbor

CLEANUP NEWSLETTER June 29, 2004

THE ENVIRONMENTAL PROTECTION AGENCY (EPA) ADDED PORTLAND HARBOR TO ITS NATIONAL PRIORITIES LIST OF contaminated sites in December 2000, because river sediments are contaminated with metals, pesticides, polychlorinated biphenyls (PCBs) and petroleum products. This newsletter presents current information from the ongoing Remedial Investigation and Feasibility Study (RI/FS) and provides a progress update on in-water early removal actions, upland investigations and source control work.

Work Plan Approved

In June 2004, EPA gave final approval to the programmatic work plan identifying the activities that must be completed over the next three years in order to complete the Remedial Investigation and Feasibility Study (RI/FS) for the Portland Harbor Superfund Site. The work plan provides a road map and schedule to ensure the RI/FS is completed on time and with high quality information.

The purpose of the RI/FS is to:

- Investigate the nature and extent of contamination for the in-water portion of the site, such as river sediment and water
- Assess potential risk to human health and the environment
- Develop and evaluate potential cleanup alternatives to reduce risks to acceptable levels

While work plan negotiations were underway, an important first round of data gathering was completed in accordance with the Round 1 Field Sampling Plan.

Second Round Field Sampling Starting in 2004

In addition to approving the Work Plan, which sets out the framework for ***what*** must be done to complete the RI/FS, EPA has also approved most of the Round 2 Field Sampling Plans for a second round of field work. These Field Sampling Plans (FSPs) provide detailed information on ***how, when*** and ***where*** the work of gathering data for the investigation will be carried out. Additional information on the FSPs is provided on the next page. This comprehensive field sampling effort is expected to begin in July 2004.

(continued)

Also In this Issue

Second Round Field Sampling *(continued)*

Several different kinds of field sampling are planned to collect information needed to determine the level of contamination in Portland Harbor. In addition, data will be collected to support crucial upcoming scientific analyses, such as a human health risk assessment, an ecological risk assessment, and developing cleanup alternatives. The following field sampling plans have been approved by EPA for the upcoming year:

Sediment Sampling and Benthic Toxicity Testing — Because contaminants tend to accumulate in sediments, surface and subsurface samples will be collected and analyzed to determine the level of contamination in river sediments and where the contamination is located. Benthic organisms - the bugs that live on the river bottom - will be added to some of the sediment samples to see if contaminants from the site will kill them or stunt their growth.

Equipment and procedures similar to these used to collect sediment samples at Terminal 4 (see article on page 5) will be used to collect sediment samples for the harborwide remedial investigation.

Shorebird Areas and Beach Sediment — Contaminated beach sands and sediments may pose risks to humans and shorebirds. Additional sediment samples are being collected to augment beach samples taken during the first round of sampling in 2002.

Quality Assurance Project Plan — This document describes in detail the necessary quality control and laboratory specifications that are needed to ensure the results of the work will meet the rigorous standards needed for the project.

The following field sampling plan is currently under review by EPA, DEQ and the intergovernmental technical coordination team:

Surface Water — Some contaminants found in the water column may pose risks to humans and animals that live in the water, like frogs. In addition, certain contaminants present in surface water may accumulate in fish tissue. Surface water samples will be used to identify and evaluate potential risks to people and aquatic wildlife and to understand how much contamination is being carried into or out of the harbor by the river.

The documents described in this fact sheet are available by request from Judy Smith at 503-326-6994. Following the approval of a document, it will be posted to the technical documents section of the EPA website in early July. The website can be found at: http://yosemite.epa.gov/R10/CLEANUP.NSF/sites/PtldHarbor.

Paper copies of these and other Portland Harbor documents can be reviewed by appointment at the DEQ Northwest Region offices, 2020 SW 4th Avenue, 503-229-6729.

Technical Memoranda Help Resolve Issues

The extraordinary physical, chemical and ecological complexity of Portland Harbor creates a number of technical issues for the RI/FS. EPA and the Lower Willamette Group have agreed to resolve these issues through a series of technical memoranda. These documents outline specific procedures and approaches for completing required elements of the RI/FS. Some of the key Technical Memoranda that will be submitted to EPA this summer include:

- **Food Web Model** — This document describes the feeding network in the ecosystem, and discusses how to model the transfer of contamination from sediment and surface water to fish and wildlife through the food chain.

- **Exposure Point Concentrations** — This document will describe how to use information on levels of contaminants in fish tissue to estimate potential risks to people who eat fish.

- **Selection of Toxicity Values** — These documents, currently under EPA review, describe the selection of experimental values from the scientific literature that will be used to estimate risks that contaminants may pose to fish and wildlife.

- **Hydrodynamic Model** — This document, currently under EPA review, describes how water in the river flows, circulates, and erodes or deposits sediment.

- **Groundwater Approach** — This memo will describe how groundwater will be investigated. Groundwater is water underneath the ground that flows in pores or crevices through rock, soil and sands and may eventually enter the Willamette River.

- **Preliminary Risk Evaluation Approach**— This document, under review by EPA, will describe the approach to be used in the Preliminary Risk Evaluation.

- **Benthic Assessment Approach**— This document, under review by EPA, describes the development of a model for predicting the relationships between sediment contamination and bioassay responses.

- **Ecological Risk Assessment Approach** — This document will describe how risk will be evaluated for fish, wildlife and plants.

Searching for Potentially Responsible Parties

EPA is in the process of identifying potentially responsible parties (PRP's) associated with the contamination of the Portland Harbor Superfund site. In 2000, sixty-nine "general notice" letters were sent to an initial list of property owners, tenants and governments, informing them of potential liability. An extensive search will eventually identify many more parties who may be responsible for contamination. The PRP search includes research in public records and requests for information from generators, transporters, owners and operators of facilities along the Lower Willamette River. With its history of more than 150 years of industrial use, finding those potentially responsible parties is a complicated but very important search process.

Ten parties initially contacted by EPA, formed the Lower Willamette Group and agreed to pay for the investigation. Parties who did not sign an agreement with EPA will still be responsible for their share of the investigation and cleanup. EPA will determine appropriate contributions by parties toward total site costs as part of the investigation and PRP search. The PRP search process will continue over the next two years.

Early Action Updates

"Early action" is the term that is used to describe projects that remove contamination from the Portland Harbor Superfund site while the remedial investigation is under way. These site specific removal actions provide a head start on cleaning up identified areas of contamination and may help control sources of contamination to the Willamette River. These "early actions" are the first step, since further cleanup may be identified as part of the proposed remedy for the site. There are currently two early actions under way in Portland Harbor at GASCO and Terminal 4. Others will likely be starting during the next year.

Early Action at Port of Portland, Terminal 4

In late spring, the Port of Portland finished gathering data for the Terminal 4 Early Action Sediments Cleanup project. Because the Port recognized that contaminated sediments exist and voluntarily agreed to clean them up, the Terminal 4 cleanup focuses on developing and selecting cleanup alternatives. This is a step that will come much later in the larger Portland Harbor investigation.

The Terminal 4 Early Action Sediments Cleanup project area extends from the north end of "Slip 1" to the edge of "Slip 3," and includes river sediments from the ordinary high-water line on the northeast bank of the lower Willamette River to the edge of the navigation channel. Terminal 4 is on the east bank of the Willamette, just north of the St. Johns Bridge.

Objectives of this early action are to: 1) reduce ecological and human health risks associated with sediment contamination within the project area to acceptable levels, and 2) limit the likelihood of recontamination of sediments within the project area.

The Port is currently developing an Engineering Evaluation and Cost Analysis (EE/CA) for the project. This summer, the Port plans an outreach effort to explain various cleanup methods and options that may be considered. It will also gather feedback from the community. A formal public comment period on the EE/CA is planned for May 2005.

The Port of Portland is also planning to construct a sheet-pile wall in Slip 3 to facilitate an immediate range of cleanup options for the early action project (including deeper dredging adjacent to the dock structure).

The Port of Portland's Terminal 4 Slip 3 is actively used to load and unload ships arriving in Portland

If you have questions about the proposed Terminal 4 sediment cleanup, contact **Sean Sheldrake** at sheldrake.sea@epa.gov or 206-553-1220. For questions on the sheet-pile wall construction, please contact **Sue Safford**, at 503-944-7047 or saffos@portptld.com.

To learn more about the Terminal 4 Sediments Cleanup, visit http://yosemite.epa.gov/R10/CLEANUP.NSF/sites/T4.

GASCO

EPA and Northwest Natural have formalized an agreement to remove tar from river sediment along the former Portland Gas and Coke Company (GASCO) site. Northwest Natural currently owns and operates the site. The GASCO project is the second "early action" agreement for the Portland Harbor Superfund Site, and will be the first in-water removal of contamination since Portland Harbor was added to the National Priorities List in 2000.

EPA has determined that the tar-removal planning should take less than six months. One goal of the removal is to remove the potential for the tar body to contaminate downstream areas of the Willamette River.

The Administrative Order on Consent (AOC) commits Northwest Natural to develop a work plan within 30 days, with the goal of completing removal of the tar-body in the river next winter, at times when the least impact to migrating salmon would occur. Characterization of the site, to define the area to be removed, and evaluation of disposal options will take place this summer. The order is available by request at http://yosemite.epa.gov/r10/cleanup.nsf/ph/GASCO

View of the tar deposit at the shore of the GASCO facility in Portland Harbor

GASCO built and operated an oil-gasification plant on the site between 1913 and 1956, which discharged waste-water effluent, tar and other contaminated material to the river through a stream channel, low-lying areas and settling ponds. About 30,000 cubic yards of tar waste accumulated by the time the plant was shut down, and the ponds were buried under ten feet of fill in 1973.

For more information about the GASCO tar removal, contact **Sean Sheldrake** at sheldrake.sean@epa.gov or 206-553-1220.

UPLAND UPDATES

Source Control Measure Proposed for ARCO/BP Terminal

DEQ is currently reviewing public comment received on a proposed interim source-control measure designed to prevent petroleum contamination at the British Petroleum (BP) Bulk Terminal site in Portland Harbor from migrating to the Willamette River. The BP Terminal (formerly ARCO) is located on the west bank of the Willamette River at river mile 4.9. DEQ has identified liquid and dissolved phase petroleum in groundwater at the site.

The interim source control measure will replace and enhance the existing groundwater extraction/seawall system to more completely prevent petroleum from reaching the Willamette River. The proposed system will more aggressively recover petroleum floating on groundwater and extract contaminated groundwater before it reaches the river. Contaminated groundwater will be treated to remove petroleum-related contaminants and discharged back to the river under the facility's existing National Pollution Discharge Elimination System (NPDES) permit.

A final remedy for the facility will be selected by DEQ following completion of a feasibility study by BP. If you'd like to review the file, call (503) 229-6729 to schedule an appointment. For more information, or to submit comments, contact **Tom Gainer**, DEQ Project Manager, at 503-229-5326 or gainer.tom@deq.state.or.us.

Summer Construction at McCormick and Baxter

A sediment cap will be constructed in the river next to the McCormick & Baxter Creosote Co. Superfund site beginning in July. The cap will prevent people and animals from coming into contact with contaminated sediments as well as to prevent the movement of toxic contaminants under the site from entering the river.

The cap will consist of sand, with rock-and-concrete- block armoring over a 23-acre area in the river and along the banks. A specially formulated clay will be used in several areas along the beach where creosote seeps into the river. In addition to the in-water sediment cap, the river bank will be re-graded and re-vegetated. Construction will be completed by Oct. 15, 2004 so that the activity will not harm salmon species migrating through Portland Harbor.

Last year, work was completed on a sub-surface barrier wall surrounding the primary waste areas within the 43-acre property.

The barrier wall prevents creosote and other contamination from migrating into the river. The final phase of the McCormick & Baxter cleanup will be construction of a soil cap over the entire property. DEQ is currently working on the design of the soil cap. EPA will also provide funding for this phase of the cleanup, later this year. Construction of the soil cap is expected to be completed by Sept. 30, 2005.

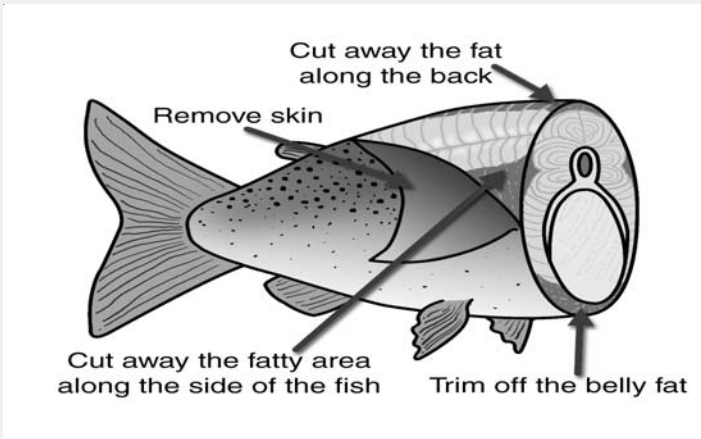
From the 1940's to 1990, McCormick & Baxter produced a variety of chemically treated wood products, such as utility poles. Harmful contaminants identified in river sediments during subsequent cleanup investigations include creosote, arsenic, dioxin and pentachlorophenol (PCP). These substances are known to be harmful to humans and wildlife, and can have devastating effects on fish habitat in the Willamette River.

Updated Portland Harbor Fish Advisory Information:

The fish advisory for the Willamette River at Portland Harbor was updated by the Oregon Department of Human Services on June 16, 2004. Here is a summary of the key information from the fish advisory:

Women of childbearing age, particularly pregnant or breastfeeding women, children and people with weak immune systems, thyroid or liver problems, should avoid eating resident fish from Portland Harbor, especially carp, bass and catfish.

Healthy women beyond childbearing age and healthy adult males should restrict the amount of resident fish eaten from Portland Harbor to no more than one 8-ounce meal per month.



Non-resident fish, such as salmon and steelhead, are considered an excellent high-protein, low-fat food source and have no restrictions on the amount eaten from Portland Harbor.

Because PCBs tend to accumulate in the fat, skin and organs, exposure to consumers can be significantly reduced by cooking, especially if the fish is grilled, broiled or baked. Preparation methods to help reduce exposure include removing the skin, belly, back and side fat, as well as discarding the eggs, eyes, head and organs of the fish.

Portland Harbor Community Advisory Group Meets Monthly

The Portland Harbor Community Advisory Group (CAG) fills the important role of advising EPA and DEQ of community concerns related to the cleanup. The CAG is a citizen-led group consisting of people from local neighborhood associations, environmental, health, recreation, and business groups, and concerned citizens. The group meets on the second Wednesday of every month to hear project updates, become informed about contaminants and cleanup options and discuss community concerns and priorities related to the Superfund site.

For more information on the CAG, check their website at http://www.portlandharborcag.org/ or contact CAG Chair Robin Plance at rgplance@hotmail.comThe next meeting of the Community Advisory Group is Wednesday, July 14 from 6:00 to 8:00 p.m. at the State of Oregon Building, 800 NE Oregon Street in Portland.

Willamette River Cleanup Authority plans first meeting

Last year, the Oregon legislature passed Senate Bill 751, related to the contaminated sediments in Portland Harbor, creating the Willamette River Cleanup Authority (WRCA). The Authority, chaired by Governor Ted Kulongoski, includes State Representatives Dan Doyle and Betsy Johnson, and State Senators Rick Metsger and Jason Atkinson. The purpose of the WRCA is to receive reports from DEQ, EPA and potentially responsible parties about the ongoing RI/FS process, and to make recommendations to the Oregon legislature about the amount of bonds needed to pay for implementation of all or part of the in-water cleanup plan formalized in the site Record of Decision.

The first meeting of the WRCA is scheduled for Friday, July 23, 2004 at the City Water Pollution Control Lab in St. Johns from 9:00 a.m. to noon. Public participation is welcomed, and opportunities for public testimony will be available at each meeting. The meeting notice will be sent to the news media, the Community Advisory Group listserv, and will be posted on DEQ's website at http://www.deq.state.or.us/nwr/PortlandHarbor/ph.htm.

FOR MORE INFORMATION

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Tom Gainer, DEQ Project Manager (Source Control)
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Information repositories are located at the following Multnomah County libraries:

St. Johns Branch Library
Reference Desk
7510 N. Charleston Avenue

Northwest Branch Library
Reference Desk
2300 NW Thurman Street

Central Library Government Documents
Reference Desk
801 SW 10th Avenue

Alternative formats are available upon request by calling Judy Smith.

On the Web at:

http://yosemite.epa.gov/R10/CLEANUP.NSF/sites/PtldHarbor & http://www.deq.state.or.us/nwr/PortlandHarbor/ph.htm

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DEQ

PORTLAND HARBOR NEWSLETTER
PORTLAND, OREGON
SUMMER 2004

Saturday, September 18, 2004 - MARK YOUR CALENDAR!

Portland Harbor Superfund Field Day at Cathedral Park

Join the Portland Harbor CAG, DEQ, EPA, DHS, the City of Portland, the Lower Willamette Group and others, for an afternoon in the park to find out more about what is being done to study and clean up Portland Harbor.

Portland Harbor
You & Your Community

Ideas in the works include boat tours to view sampling sites in the harbor, fish filleting demonstrations, science displays, watershed education, children's activities and outreach to communities who fish in the Harbor.

If you would like to volunteer your time and talents, please contact Fenix Grange at 503-229-6590 or Judy Smith at 503-326-6994.